

Appl'n No: 10/578,288
Amdt dated October 30, 2007
Reply to Office action of August 22, 2007

AMENDMENTS TO THE DRAWINGS:

The attached replacement sheets of drawings, including Figures 1-5 replace the previously submitted sheets of drawings including Figures 1-5. More specifically, Applicant has amended Figures 1-5. Each replacement sheet has been clearly labeled "Replacement Sheet" in the page header.

Attachment: 5 Replacement Sheets of drawings including Figures 1-5

REMARKS

Claims 1, 2, and 4-6 are pending in the application. Claim 3 has been cancelled. Claim 6 had been added. Claims 1, 4, and 5 have been amended. Claim 1 is in independent form.

Drawings

1. The Examiner has objected to the drawings under 37 C.F.R. §1.83(a) because the drawings must show every feature of the invention specified in the claims. Specifically, the Examiner states that the “DC motor,” “cable drive,” “two pedal arms,” and “a control rod for each pedal arm, each control rod engaging the threaded bore of a bushing in a respective control arm and each control rod having a respective driven gear” must be shown or the feature(s) canceled from the claim(s). In response, Applicants have attached 5 replacement sheets of drawings, including Figures 1-5, hereto directly following these Remarks. Each replacement sheet has been labeled as “Replacement Sheet” in the page header as per 37 C.F.R. §1.121(d).

In amended Figure 1, reference character “64” has been added to identify the bushing 64. Reference character “76c” has been added to identify the driven gear 76c. Reference character “84” has been added to identify the control rod 84. Reference character “88” has been added to identify the longer square cross-sectioned portion 88.

In amended Figure 2, reference character “72” has been added to identify the driver gear 72. Reference character “76b” has been added to identify the driven gear 76b. Reference character “76c” has been added to identify the driven gear 76c. Reference character “84” has been added to identify the control rod 84. Reference character “88” has been added to identify the longer square cross-sectioned portion 88. In addition, the DC motor 90 and cable drive 92 have been added in order to correspond with the description in paragraph [0021], as amended.

In amended Figure 3, reference character “65” has been added in three places to identify the threaded bore 65.

In amended Figure 4, reference character “76” has been amended in two instances. In one instance, reference character “76” has been amended as “76b” to identify the driven gear

76b. In another instance, reference character "76" has been amended as "76c" to identify the driven gear 76c.

In amended Figure 5, reference character "77" has been added in three places to identify the square center passage 77 in order to correspond with the description in paragraph [0019], as amended. Reference character "81" has been added in three places to identify the threaded portion 81 in order to correspond with the description in paragraph [0019], as amended.

Thus, Applicants respectfully suggest that the objection to the drawings is now moot.

Specification

2. The Examiner has objected to the abstract of the disclosure. In response, Applicants have submitted a new abstract of the disclosure hereto directly following these Remarks. Applicants have also instructed the Examiner to cancel the previously submitted abstract of the disclosure.

In addition, the specification has been amended to clarify terminology set forth in the application as filed. Applicants attest that no new matter has been added thereto.

Claim Objections

3. The Examiner has objected to claim 3 due to several informalities. In response, Applicants have cancelled claim 3. Thus, the objection to claim 3 is now moot.

Claim Rejections – 35 U.S.C. §112

4-7. Claims 1-5 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse the rejection.

First, the Examiner states that in claim 1 it is "unclear if the driving means of line 19 is referring to the same driving means as the one cited in line 17, or if the Applicant intends to

claim an additional separate driving means." In response, Applicants have amended claim 1 to set forth "the driving means" in line 19 in order to refer to the same driving means.

Second, the Examiner states that there is insufficient antecedent basis in claim 5 for the limitation "driving means gear" in line 1. In response, Applicants have amended claim 5 to set forth "the driving means." Claim 1 sets forth a driving means. Thus, there is sufficient antecedent basis for "the driving means" in claim 5.

Therefore, Applicants respectfully request that the rejection of claims 1-5 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention be withdrawn.

Claim Rejections – 35 U.S.C. §102

8-9. Claims 1-3 stand rejected under 35 U.S.C. §102(b), as being anticipated by U.S. Patent 4,870,871 to Ivan ("the '871 reference"). Applicants respectfully traverse the rejection.

The '871 reference discloses a mechanism for adjusting the fore and aft positions of a motor vehicle brake lever 14 and accelerator lever 18. The pedal assembly 10 includes a pair of parallel, threaded shafts 20, 50, each of which is connected to a gear assembly 42, 46, 48, 52, 54, 56 for simultaneous rotation. A cross rod 24 is threadably mounted to each shaft 20, 50. The brake 14 and accelerator 18 levers are pivotably mounted to the cross rod 24. The brake lever 14, accelerator lever 18, and cross rod 24 move in a direction which is parallel to the threaded shafts 20, 50 upon rotation of these shafts 20, 50. An elongate housing 36 is connected to a booster input 43 for the vehicle braking system while a threaded rod 38 extending therefrom is connected to the brake lever 14. The housing 36 is rotated in unison with the threaded shafts 20, 50, thereby causing the threaded rod 38 to move in the same direction as the brake lever 14.

Claim 1, as amended, includes the limitation of "a control rod having a threaded portion and a portion to engage a second driven gear, the threaded portion of the control rod engaging a complementary threaded bore in a bushing directly attached to the pedal arm, the portion

engaging the second driven gear being laterally movable through the second driven gear and the end distal the threaded portion actuating a mechanism to be controlled."

The Examiner characterizes an actuator housing 36 having a threaded internal bore 36A in the '871 reference as equivalent to a bushing (64) in the above-captioned application. In the above-captioned application, the bushing (64) is directly attached to a pedal arm (48) and a control rod (84) having a threaded portion (81) engages a complimentary threaded bore (65) in the bushing (64). In contrast, in the '871 reference, the actuator housing 36 is not directly attached to the brake lever 14. Rather, a threaded rod 38 having an eyelet 40 at one end is connected to a pivot pin 37 extending laterally from the brake lever 14. The threaded rod 38 is positioned within the threaded bore 36A of the actuator housing 36 which extends through a rectangular opening 42A in a first gear 42 and is connected to a booster input 43. **Thus, the '871 reference clearly does not disclose a control rod having a threaded portion engaging a complimentary threaded bore in a bushing directly attached to a pedal arm, as required by amended claim 1 of the above-captioned application.**

Applicants have cancelled claim 3.

Claim 2, as amended, depends from amended claim 1 and, as such, is construed to incorporate by reference all the limitations of the claim to which it refers, *see* 35 U.S.C. §112, fourth paragraph. Thus, claim 2 must be read as including the limitation of a control rod having a threaded portion and a portion to engage a second driven gear, the threaded portion of the control rod engaging a complementary threaded bore in a bushing directly attached to the pedal arm, the portion engaging the second driven gear being laterally movable through the second driven gear and the end distal the threaded portion actuating a mechanism to be controlled.

Therefore, Applicants respectfully request that the rejection of claims 1-3 under 35 U.S.C. §102(b) as being anticipated by the '871 reference be withdrawn.

Claim Rejections – 35 U.S.C. §103

10-11. Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the '871 reference. Applicants respectfully traverse the rejection.

The '871 reference discloses an electric motor. The Examiner states that it "would have been obvious to a person having ordinary skill in the art at the time of the invention to use a driving means comprising a DC motor."

Claim 4, as amended, depends from amended claim 1 and, as such, is construed to incorporate by reference all the limitations of the claim to which it refers, *see* 35 U.S.C. §112, fourth paragraph. Thus, claim 4 must be read as including the limitation of a control rod having a threaded portion and a portion to engage a second driven gear, the threaded portion of the control rod engaging a complementary threaded bore in a bushing directly attached to the pedal arm, the portion engaging the second driven gear being laterally movable through the second driven gear and the end distal the threaded portion actuating a mechanism to be controlled.

In light of the foregoing, Applicants respectfully suggest that the '871 reference does not provide any teaching, suggestion, or motivation to render amended claim 4 of the above-captioned application obvious to one skilled in the art at the time of invention.

Therefore, Applicant respectfully requests that the rejection of claim 4 under 35 U.S.C. §103(a) as being unpatentable over the '871 reference be withdrawn.

12. Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the '871 reference in view of U.S. Patent 6,516,683 to Sundaresan et al. ("the '683 reference"). Applicants respectfully traverse the rejection.

The Examiner states that it "would have been obvious to a person having ordinary skill in the art at the time of the invention to have modified the device of Ivan to include a driving means comprising a cable drive driven by a DC motor, as taught by Sundaresan, for the purpose of providing a flexible drive means that can adjust to the movement of the pedals."

Claim 5, as amended, depends from amended claim 1 and, as such, is construed to incorporate by reference all the limitations of the claim to which it refers, *see* 35 U.S.C. §112, fourth paragraph. Thus, claim 5 must be read as including the limitation of a control rod having a threaded portion and a portion to engage a second driven gear, the threaded portion of the control rod engaging a complementary threaded bore in a bushing directly attached to the pedal arm, the portion engaging the second driven gear being laterally movable through the second driven gear and the end distal the threaded portion actuating a mechanism to be controlled.

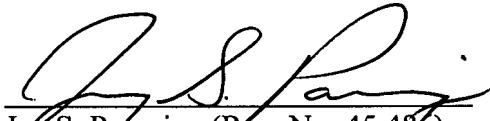
In light of the foregoing, Applicants respectfully suggest that the '871 reference does not provide any teaching, suggestion, or motivation to render claim 5 of the above-captioned application obvious to one skilled in the art at the time of invention.

Therefore, Applicant respectfully requests that the rejection of claim 5 under 35 U.S.C. §103(a) as being unpatentable over the '871 reference in view of the '683 reference be withdrawn.

It is respectfully submitted that this patent application is in condition for allowance, which allowance is respectfully solicited. If the Examiner has any questions regarding this amendment or the patent application, the Examiner is invited to contact the undersigned.

The Commissioner is hereby authorized to charge any additional fee associated with this Communication to Deposit Account No. 50-1759. A duplicate of this form is attached.

Respectfully submitted,



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